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OCEANOGRAPHIC WIDE FIELD SENSOR

by

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The Oceanographic Wide Field Sensor (SeaWiFS) science project will provide measurements of ocean color from space to which will support research into: a) the character of ocean physical and biological processes; b) to assess the global oceanic biomass; and c) to better understand the role of oceanic processes in modulating the Earth's biogeochemical cycles, including the CO<sub>2</sub> cycle as it is affected by fossil fuel combustion. This research will be conducted by NASA as well as the outside scientific community through an Announcement of Opportunity process.

The present work extends previous work to study the feasibility of an ocean color mission using the proposed compact Wide-field Sensor (SeaWiFS) and the EOSAT Corporation's LANDSAT-6 satellite.

We conducted a Phase A study which defines a NASA Facility Data System and accompanying Science Program for the EOSAT Company's commercial ocean color instrument called "SeaWiFS" to be launched on board LANDSAT-6 in 1991. Codes 670, 630, and 620 participated in the study. A current working group chartered jointly by NASA Headquarters and EOSAT is providing final baseline characteristics.

Next year a GSFC Project will work with EOSAT and the Joint NASA/EOSAT Working Group to integrate the commercial and science

baseline and develop a detailed NASA plan for implementation of a Science Data System for a FY91 SeaWiFS launch on LANDSAT-6. the proposed concept assumes NASA input to the SeaWiFS specification and operational scheduling, and the receipt of worldwide, continual taped ocean color data from EOSAT, as well as direct read out of East Coast real time coverage at GSFC. EOSAT will forward taped ocean color data to a data processing system at GSFC. GSFC, in turn, will process all received data to scientifically useful form on optical disk format and distribute it to the research community in conjunction with the NASA Ocean Data System. Research community users include: NASA Principal Investigators, Announcement of Opportunity participants, and other researchers through the NSSDC.